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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/564,627	01/13/2006	Son Nguyen-Kim	13111-00030-US1	9624
23416 7590 02/17/2009 CONNOLLY BOVE LODGE & HUTZ, LLP P O BOX 2207 WILMINGTON, DE 19899				
EXAMINER				
BARHAM, BETHANY P				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/564,627

**Applicant(s)**

NGUYEN-KIM ET AL.

**Examiner**

BETHANY BARHAM

**Art Unit**

1615

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 3-5, 7-10, 14-17 and 19-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 6, 11-13 and 18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/808)
- Paper No(s)/Mail Date 1/13/06
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Summary***

Receipt of IDS filed on 1/13/06 is acknowledged. Applicant's is Response and Claim Amendments filed on 11/28/08 are also acknowledged. Claims 1-22 are pending.

### **Election/Restrictions**

Applicant's election with traverse of Group I in the reply filed on 11/28/08 is acknowledged. The traversal is on the ground(s) that a search for the compound of Group I will necessarily overlap with a search for Groups I-II as originally presented. This is not found persuasive, as pointed out in the 10/30/08 Election/Restriction requirement, Group I is drawn to a cosmetic or pharmaceutical composition and Group II is drawn to various uses and there is no special technical feature. Specifically the Groups lack unity because they lack a single special technical feature as US 6,482,394 B1 Examples 1-3 and 8 teach a hair treatment composition comprising A1) polyquaternium 16, 44, or 46, A2) Luvimer MAE in B) water. Further, amended claims 19-22 are now drawn to the method of preparing which is not the elected invention of Group I a composition.

Applicant has elected for the purpose of examination A1) vinylimidazole and vinyl-pyrrolidone, A2) acrylic acid and B) water. As such, claims 3-5, 7-10, 14-17 and 19-22 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species and invention, there being no allowable generic or linking

claim. Claims 1-2, 6, 11-13, and 18 will be examined in the instant application. Applicant timely traversed the restriction (election) requirement in the reply filed on 11/28/08. The requirement is still deemed proper and is therefore made FINAL.

## **NEW REJECTIONS**

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 6, 11-13, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,482,394 B1 ('394) ((English equivalent) provided in the PCT search report as DE 197 50 520A).

The instant claims are drawn to a cosmetic or pharmaceutical composition comprising A) at least one water-soluble or water-dispersible polyelectrolyte complex comprising A1) at least one water-soluble or water-dispersible copolymer with cationogenic groups which comprises, in copolymerized form, vinylimidazole and/or a derivative thereof and at least one further monomer copolymerizable therewith, and A2) at least one acid-group-containing polymer, and B) at least one cosmetically acceptable carrier. (Elected species are A1) vinylimidazole and vinyl-pyrrolidone, A2) acrylic acid and B) water).

- '394 teaches a hair treatment composition comprising at least one cationic and at least one anionic polymer in water (col. 1, lines 8-11, 45-49 and col. 8, lines 32-34) (meeting the limitations of claim 1 and 11). Preferred cationic polymers include 12) quaternary copolymers of vinylpyrrolidone-vinylimidazole (col. 7, lines 35-36) and Examples 1-2 teach polyquaternium 44 and 16 both of which contain 30% vinylimidazole component and 70% vinylpyrrolidone (according to the limitations of claims A1, 2, and 6). Preferred anionic polymers include A) homopolymers of acrylic or methacrylic acid (col. 8, lines 3-5) (according to the limitations of claim A2).
- '394 teaches that propellants, alcohols and additional auxiliaries include colorants, preservatives, emulsifiers, fragrances, electrolytes, viscosity regulators, foam stabilizers, etc (col. 8, lines 40-55) (according to the limitations of claim 12 and 18).
- '394 teaches that the compositions is preferable in the form of lotion, gels or foams (col. 9, lines 60-67) (according to the limitations of claim 13).
- Examples 11-12 teach a hair gel composition comprising A1) polyquaternium 46 (vinylcaprolactam/vinylpyrrolidone/quaternized vinylimidazole polymer), A2) Carbomer (acrylic acid) in B) water with an added surfactant AMP, preservative Euxyl K 100 and a thickener such as the copolymer Luvimer MAE 30D.
- '394 do not teach a single example with the elected species A1) polyquaternium 16 or 44, A2) Carbomer (acrylic acid) in B) water, but do teach compositions of

anionic polymer and cationic polymers in water and polyquaterniums with acrylic acid.

A reference is analyzed using its broadest teachings. MPEP 2123 [R-5].

"[W]hen a patent simply arranges old elements with each performing the same function it had been known to perform and yields no more than one would expect from such an arrangement, the combination is obvious". KSR v. Teleflex, 127 S.Ct. 1727, 1740 (2007)(quoting Sakraida v. A.G. Pro, 425 U.S. 273, 282 (1976)). "[W]hen the question is whether a patent claiming the combination of elements of prior art is obvious", the relevant question is "whether the improvement is more than the predictable use of prior art elements according to their established functions." (Id.). Addressing the issue of obviousness, the Supreme Court noted that the analysis under 35 USC 103 "need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ." KSR v. Teleflex, 127 S.Ct. 1727, 1741 (2007). The Court emphasized that "[a] person of ordinary skill is... a person of ordinary creativity, not an automaton." Id. at 1742.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to rearrange the anionic and cationic polymer in water composition of '394 with the known specific anionic and cationic polymers disclosed in '394 to obtain the predictable result of a composition comprising A1) copolymers of vinylpyrrolidone-vinylimidazole, A2) acrylic acid in B) water. Further, it would be within the purview of the skilled artisan to substitute into the acrylic acid composition of Examples 11-12 the

specific cationic polymer of polyquaternium 16 or 44 for the polyquaternium 46 since all are taught to be preferred cationic polymers (col. 7, lines 35-36 and Examples 1-3), with the predictable result of a hair composition.

Claims 1-2, 6, 11-13, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 4,668,508 ('508) (provided in the PCT search report).

The instant claims are drawn to a cosmetic or pharmaceutical composition comprising A) at least one water-soluble or water-dispersible polyelectrolyte complex comprising A1) at least one water-soluble or water-dispersible copolymer with cationogenic groups which comprises, in copolymerized form, vinylimidazole and/or a derivative thereof and at least one further monomer copolymerizable therewith, and A2) at least one acid-group-containing polymer, and B) at least one cosmetically acceptable carrier. (Elected species are A1) vinylimidazole and vinyl-pyrrolidone, A2) acrylic acid and B) water).

- '508 teaches a composition for the hair comprising a cationic polymer and an anionic polymer in a cosmetically acceptable medium (abstract). '508 teaches that the cationic and anionic polymer are in aqueous solution together with a nonionic polymer (col. 11, lines 30-34) (meeting the limitations of claim 1, 11 and 18). Preferred cationic polymers of '508 include 12) quaternary copolymers of vinylpyrrolidone-vinylimidazole (col. 8, lines 8-10) and Examples 10, 16 and 20 teach Luviquat FC 905 (which the instant specification teaches is a preferred

polymer pg. 32, lines 27-30) (according to the limitations of claims A1, 2, and 6). Preferred anionic polymers include A) homopolymers of acrylic or methacrylic acid (col. 8, lines 50-64 and Examples 18 and 20) (according to the limitations of claim A2).

- '508 teaches adding additional components such as propellants, perfumes, colorants, preservatives, thickeners, surfactants, etc (col. 11, lines 36-65) (according to the limitations of claims 12 and 18).
- '508 teaches that the compositions can be in lotion or lacquered form and thickened or gelled (col. 11, lines 27-35) (according to the limitations of claim 13).
- '508 does not teach a single example with the elected species A1) copolymers of vinylpyrrolidone-vinylimidazole, A2) acrylic acid in B) water, but does teach compositions of anionic polymer and cationic polymers in water and copolymers of vinylpyrrolidone-vinylimidazole with methacrylic acid (Example 20).

A reference is analyzed using its broadest teachings. MPEP 2123 [R-5].

"[W]hen a patent simply arranges old elements with each performing the same function it had been known to perform and yields no more than one would expect from such an arrangement, the combination is obvious". KSR v. Teleflex, 127 S.Ct. 1727, 1740 (2007)(quoting Sakraida v. A.G. Pro, 425 U.S. 273, 282 (1976)). "[W]hen the question is whether a patent claiming the combination of elements of prior art is obvious", the relevant question is "whether the improvement is more than the predictable use of prior art elements according to their established functions." (Id.).

Addressing the issue of obviousness, the Supreme Court noted that the analysis under



35 USC 103 "need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ." KSR v. Teleflex, 127 S.Ct. 1727, 1741 (2007). The Court emphasized that "[a] person of ordinary skill is... a person of ordinary creativity, not an automaton." Id. at 1742.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to rearrange the anionic and cationic polymers in water composition of '508 with the known specific anionic and cationic polymers disclosed in '508 to obtain the predictable result of a composition comprising A1) copolymers of vinylpyrrolidone-vinylimidazole, A2) acrylic acid in B) water. Further, it would be within the purview of the skilled artisan to substitute into the Luviquat FC 905 composition of Example 20 the specific anionic polymer of acrylic acid for the methacrylic acid since both are taught to be preferred acceptable anionic polymers (col. 8, lines 50-53), with the predictable result of a hair gel.

### ***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bethany Barham whose telephone number is (571)-272-6175. The examiner can normally be reached on Monday to Friday; 8:30 a.m. to 5:00 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward can be reached on (571) 272-8373. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Art Unit 1615

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